

Patent

NASA Case No. NPO-20535-2-CU

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
Adrian Stoica, et al. ) Examiner: Unknown  
)  
Entitled: EVOLUTIONARY TECHNIQUE FOR ) Group Art Unit: Unknown  
AUTOMATED SYNTHESIS OF ELECTRONIC )  
CIRCUITS )  
)  
Serial No.: To be assigned )  
)  
Filing Date: Herewith )

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicant hereby cites patent and/or publications for consideration by the Patent and Trademark Office in regard to the claimed invention on the attached form. By this notice the applicant requests that the Patent and Trademark Office make of record the documents listed. No representation is made that more pertinent material is not available or should not be considered by the Examiner. It is expected that the Patent and Trademark Office will independently conduct a complete search of appropriate art. Furthermore, no admission is being made that these documents are prior art, and applicant reserves the right to challenge any such consideration.

Respectfully submitted,

Dated Jan. 26, 2004

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FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

Attorney Docket No.: NPO-20535-2-CU Serial No.: To be Assigned

Applicant(s): Adrian STOICA, et al.

Filing Date: Herewith

Group: Unknown

**LIST OF PRIOR ART CITED BY APPLICANT**  
*(Use several sheets if necessary)***U. S. PATENTS**

Initials	Patent No	Issue Date	Name	Class	Subclass	Filing Date
	US-5,258,947	11-02-1993	SOURGEN	365	96	12-07-1990
	US-5,677,691	10-14-07	HOSTICKA ET AL.	341	155	06-25-1993
	US-5,705,938	01-06-1998	KEAN	326	39	09-05-1995
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**FOREIGN PATENT DOCUMENTS**

Initials	Document Number	Date	Country	Name	Translation? (Yes/No/n/a)

Initials	Other Documents (Title, Author, Date, Pages, Etc., if known)
	Augusto, Soares J.A., and Almeida, Beltran C.F., "Analog Fault Diagnosis in Nonlinear DC Circuits with an Evolutionary Algorithm," <i>IEEE</i> , July 2000, pp. 609-616.
	Layzell, Paul, "A New Research Tool for Intrinsic Hardware Evolution," Second International Conference, <i>ICES98</i> , Lausanne, Switzerland, Springer, September 23-25, 1998, pp. 47-56.

Examiner's Signature:

Date Considered:

Initial if reference was considered, whether or not citation with MPEP. Mark through citation if not considered. Include a copy of this citation form with your next correspondence to the Applicant(s).

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	Perkowski, M. Chebotarev, A., and Mishchenko, A., "Evolvable Hardware or Learning Hardware? Induction of State Machines from Temporal Logic Constraints," <i>Proceedings of the First NASA/DoD Workshop</i> , July 19-21, 1999, pp. 129-138.
	Stoica, Adrian, "Reconfigurable Transistor Arrays for Evolvable Hardware," <i>NASA Tech Brief</i> , Vol. 25, No. 2, Item # from JPL New Technology Report NPO-20078, July 26, 1996, pp5a.
	Stoica, Adrian, "Evolvable Hardware: From On-Chip Circuit Synthesis to Evolvabale Space," <i>IEEE</i> , May 2000, pp. 1-9.
	Stoica, Adrian, "Toward Evolvable Hardware Chips: Experiments with a Programmable Transistor Array," <i>IEEE</i> , April, 1999, pp. 1-7.
	Stoica, A., Keymeulen, D., Duong, V., and Salazar-Lazaro, C., "Automatic Synthesis and Fault-Tolerant Experiments on an Evolvable Hardware Platform," <i>IEEE</i> , October 2000, pp. 465-471.
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	Stoica, A., Salazar-Lazaro, C., and Tawel, R., "Evolvable Electronic Systems," <i>1998 Military and Aerospace Applications of Programmable Devices and Technologies (MAPLD) Conference</i> , Pasadena, CA, September 15-16, 1998.

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	Stoica, A., Keymeulen, D., Zebulum, R., Thakoor, A., Daud, T., Klimeck, G., Jin, Y., Tawel, R., and Duong, V., "Evolution of analog circuits on Field Programmable Transistor Arrays," <i>IEEE</i> , July, 2000, pp. 1-10.						
	Stoica, A., Klimeck, G., Salazar-Lazaro, C., Keymeulen, D., and Thakoor, A., "Evolutionary Design of Electronic Devices and Circuits," <i>Evolutionary Computation, Proceedings of the 1999 Congress</i> , Washington, D.C., July 6-9, 1999, pp. 1271-1278.						
	Zebulum, R., Pacheco, M., "Evolvable Hardware: On the Automatic Synthesis of Analog Control Systems," <i>IEEE</i> , March, 2000, pp. 451-463.						
	Zebulum, R., Stoica, A., and Keymeulen, D., "A Flexible Model of a CMOS Field Programmable Transistor Array Targeted for Hardware Evolution," <i>3<sup>rd</sup> International Conference of Evolvable Systems, ICES2000</i> , Edinburgh, Scotland, April, 2000.						
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